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ABSTRACT

The purpose of this study was to determine changes made in the dietary levels of families participating in the Expanded Foods and Nutrition Program in Choctaw County, Mississippi. The educational work was done by county professionals who were trained by the home economist and who then taught the homemakers through individual home visits. Data were collected through personal interviews from 100 families in March 1969, September 1969, and March 1970. The families' consumption of the basic 4 food groups was used to determine the dietary level. Major findings were: there was a significant increase in the use of the basic 4 food groups; there was no indication that the educational level of the homemakers changed the adequacy of the family diets; and the greatest increase in the use of the basic food groups was made among the families having the lowest incomes. (Author/PS)

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A DETERMINATION OF THE CHANGE IN DIETARY LEVELS OF FAMILIES PARTICIPATING IN THE EXPANDED FOODS AND NUTRITION PROGRAM IN CHOCTAW COUNTY, MISSISSIPPI

BY

BILLY DOYLE WALTON

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B. D. W.

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CHAPTER I

INTRODUCTION

Statement of Problem

More than 100 years ago Victor Hugo wrote the following words in the preface to Les Miserables:

> So long as there shall exist, by virture of law and custom, a social damnation artificially creating hells in the midst of civilization, and complicating the destiny which is Divine with a fatality which is human; so long as the three great problems of the age--the degradation of man through poverty, the ruin of woman through hunger, the crippling of children through ignorance--are not solved; so long as in certain regions social asphyxia is still possible, so long as ignorance and wretchedness exist on earth, books like this cannot be useless.

For the present age, one may paraphrase part of Hugo's commentary:

> So long as there exists in the richest nation in the world a portion of its people whose lives are characterized by hunger, disease, sickness, physical and mental retardation, hopelessness and lack of ability to change their life situation, that nation, with its stated ideals of justice and equal opportunity for all its citizens, is compelled to examine critically its institutional structures and processes in order to uncover the basic causes of these undesirable conditions and to muster its resources for the elimination of those causes.(13)

This study deals with the problem of improving the standard of living, mainly in the area of foods and nutrition, among selected low income families of Choctaw County, Mississippi. The study will deal with 100 of these families who have been participating in the "Expanded Foods and Nutrition Program" since its beginning in

February, 1969. This program will be explained in detail in the next chapter.

Many of these families suffer from malnutrition and undernutrition. This does not mean that they go to bed hungry every night. It simply means that they do not have adequate and properly balanced diets.

The first and most obvious reason for this is the lack of income. The average monthly income for these 100 families was $98.94 in March, 1970. These families with below poverty level incomes are simply too poor to buy an adequate diet from the abundance available in the food stores.

Sixty-eight percent of the families in Choctaw County have an annual income of less than $3,000. Thirty-two percent of the families have an annual income of less than $1,000.(16)

The second reason, and one probably just as difficult to overcome, is a lack of knowledge of simple dietary rules, coupled with a lack of understanding of the importance of good nutrition.

Ninety of these 100 families receive donated foods. However, these donated foods alone are not adequate. This writer knows of cases where some donated foods have been fed to hogs. This was because the homemaker did not have the know-how to use them in the daily nutritional needs for her family or because her family had not developed a taste for the particular commodity.

By using a few simple recipes and some initiative, donated foods can be developed into tasty and nutritional meals. This

writer can testify to this because he has tasted some of the donated foods so prepared.

These families need to learn how to properly use the limited amount of money that is available for the purchase of food. In many cases this money is spent for foods that have little nutritional value. One example is the purchase of cookies, candy and other "goodies" that the family is fond of, especially the children, but is not nutritional so far as a balanced diet is concerned. Another example is the purchase of foods that require little preparation. While these foods are convenient they are also expensive. In many cases the same foods can be bought at a much lower price in another form which require more time and effort to prepare.

These families are limited in so far as food purchasing power is concerned in other ways, too. They cannot take advantage of specials and "stock pile" them. They do not have the money and many do not have storage facilities where cold storage is required.

Forty-one of the 100 families being studied do not have transportation. Some of them make their food purchases at a nearby country store; whereas, the same food could be purchased cheaper at a supermarket. These families often make food purchases on a credit basis and make payments at the end of the month or when they have a few dollars. Many times an extra charge is made on these credit purchases.

Another problem with these families is management of the limited family budget for materials and goods that are not an absolute necessity for the well being of the family. For example, a large

number of them have television in their homes. While television is good to have and adds to the well being of the family, it should not take the place of food when it is not possible to have them both.

Objectives

The overall objective of this study is to determine progress of the Expanded Foods and Nutrition Program in Choctaw County, Mississippi.

Specific Objectives:

1. To determine changes in the dietary levels of families in the Expanded Foods and Nutrition Program after one year of participation in the program.
2. To determine the influence of education on changes made in dietary levels of families participating in the Foods and Nutrition Program.
3. To determine the influence of income on changes made in dietary levels of families participating in the Foods and Nutrition Program.

Definition of Terms

In order that the reader may better understand the study, a brief description of the terms most commonly used is presented.

"Extension Aide" - Nonprofessional employees of the Cooperative Extension Service who work specificially with low income families in the area of Foods and Nutrition.

"Low Income Family" - A family with an annual income of $3,000 or less.

"Log" - A brief narrative report written by the aides after each visit with the low income families.

"Basic Four Food Group" - (1) Milk, (2) meat, (3) vegetable and/or fruit, (4) bread and/or cereal products.

"Adequate Servings of Basic Four Food Group" - Two or more of milk and meats, four or more of vegetable and/or fruit and of the bread and/or cereal products.

For more detailed information on the four basic food groups see Appendix A.

CHAPTER II

EXPANDED FOODS AND NUTRITION PROGRAM

The Expanded Foods and Nutrition Program was designed to improve the standard of living among low income families. The main thrust of this program is to help disadvantaged families improve the nutritional quality and adequacy of their diets. The homemakers and their families, through this program, are learning to make better use of donated foods and home gardens and to use their limited food dollars more wisely. Family health and sanitation is also emphasized through this program.

The Cooperative Extension Service

It seems fitting at this point to give a brief explanation of the Cooperative Extension Service, since this is the organization that has been given the responsibility of implementing the Expanded Foods and Nutrition Program.

The Smith-Lever Act of 1914 is the foundation upon which the Cooperative Extension work was built. The Cooperative Extension Service is the official educational agency of the United States Department of Agriculture and off-campus educational agency for each land-grant college.

According to Kelsey and Hearne, "Extension work is an out-of-school system of education in which adults and young people learn by doing."

Diffusion of information on agricultural and home economics practices and encouraging people to adopt these better methods is one of the basic objectives of Cooperative Extension work. This is understood from reading the first sentence of the Smith-Lever Act, which states that:

> In order to aid in diffusing among the people of the United States useful and practical information on subjects relating to agriculture and home economics, and to encourage application of same, there may be continued or inaugurated in connection with the college or colleges in each state, territory, or possession--agricultural Extension work---(7)

Extension is one of the three branches of the school of agriculture in the land-grant college system. The other two branches are teaching and research. Agricultural Extension is the branch which is primarily responsible for carrying research findings to the local people and translating them into practical applications. Its aim is to help apply the teaching and research findings so that the end results will be improved farms, homes and communities.

Legally each state Extension Service is a part of the land-grant institution of that state. The basic legislation creating Cooperative Extension work specified, however, that it should be carried on in cooperation with the United States Department of Agriculture.

The organizational levels-national, state and county-are involved in the Extension structure. Each state unit has virtually complete autonomy in directing its programs. The purpose of the national unit is to lead and not direct. This is understandable when we realize the geographical and cultural differences encountered.

The national unit assembles, interprets, and prepares information for the United States Department of Agriculture in a form that is used by each state. It interprets different situations and obtains the cooperation of various regional and national groups. Each state sends in an annual statistical and narrative report; these are combined and published in a National Annual Report. This report is submitted to the Secretary of Agriculture. The Federal Extension Service also has the responsibility of administering Federal funds.

The Director of the Extension Service is responsible to the Secretary of Agriculture; and he has administrative, supervisory, and specialized personnel under his direction to aid in assisting the various state units relative to the work of the national unit.

The state Extension organizations vary according to the particular needs of the state. In Mississippi, the Director of Extension is responsible to the Vice President of the Division of Agriculture and Forestry of Mississippi State University. Mississippi also has an Associate and Assistant Director and a State Leader for Home Economics Programs. The state staff is made up of various subject matter specialists. The state is divided into four districts. Each of these districts has a District Agent, a District Program Leader and a District Leader of Home Economics.

There is no set rule concerning size of county staffs in Mississippi. The minimum staff is a County Agent (County Leader), Assistant County Agent, Home Economist and a secretary. There is a county Extension staff in each of the 82 counties in Mississippi.

Each county staff develops its own program according to the needs of the particular county. A county plan of work is developed in each county.

From various studies that have been made, it has been found that families of higher income, with higher socio-economic ratings, higher educational levels, and who own their own farms, are the high participators in Extension activities.

In the past few years the Cooperative Extension Service has broadened its scope and added new programs to better meet the needs of all the people. This includes the urban as well as the rural population.

A part of the population that has not, in many cases, been reached is the low income, hard-to-reach poor. This is a large part of the population of Mississippi and of the United States. Fifty-two percent of the families in Mississippi had an annual income of less than $3,000 in 1959.(17) The Cooperative Extension Service has been given the responsibility of reaching this part of our population through the Expanded Foods and Nutrition Program.

Background of Expanded Foods and Nutrition Program

United States

Late in the year of 1969, about November 1, $10 million of Federal funds were made available for the remainder of the fiscal year for the purpose of expanding Home Economics Programs with low income families with primary emphasis on foods and nutrition. This program is being administered and supervised by the Cooperative Extension Service throughout the United States.

In a speech made by Mr. Lloyd H. Davis, Federal Administrator of the Cooperative Extension Service, he stated:

> Our staffs have found that typically the low income and disadvantaged people do not participate freely in group activities. They do not join many groups and organizations through which they might learn. They do not learn by reading bulletins and other educational materials. To put it briefly, they are hard to reach.
>
> Our staffs have also learned that if they visit the homes of these people and help them with problems and needs that they have and recognize they are grateful, they do learn, do adopt new ideas. Their interests then move on to other problems and needs. This kind of assistance gives these families a new sense of value and worth, a new pride, a new hope. Out of this come new desires and new aspirations and commitment to the future.
>
> Of course, we have also found that this kind of individualized personal educational assistance in the home is a costly kind of Extension program. We have had neither the home economics staff nor the funds to do as much of this kind of work as is needed or we would like to do. Furthermore, if the funds were available, the shortage of professional home economists to draw on would seriously limit our program.
>
> Recognizing this problem a number of years ago, several state Extension Services initiated pilot work to test the hypothesis that lay people with limited education out of the community could be trained and supervised by Extension home economists to go to the homes of their neighbors and provide this kind of personal educational assistance. These experiences verified the hypothesis. These pilot projects have proved to be outstandingly successful.(3)

Soon after the above mentioned pilot efforts were initiated, O.E.O. (Office of Economic Opportunity) started financing homemaker aides through Community Action Programs. In many cases, the local Home Economist assisted in training these aides and served in an advisory capacity in carrying out the aide programs. In some states, Extension Directors used funds available to them

to employ program aides before the program being discussed here became available.

It seems that the successful outcome of employing nonprofessionals as aides in these pilot programs and Community Action Programs coupled with the emphasis being placed on working with the poor hard-to-reach population of this nation helped to bring about the aide program being implemented by the Cooperative Extension Service.

For at least two years prior to the establishment of the Extension Aide Program the budget request developed through Extension's Committee on Policy (ECOP) submitted by the Federal Extension Service had included requests for substantial funds to expand home economics work with low income families and to employ program aides as a primary means of doing the job.

Also during this period, the home economics sub-committee of ECOP had taken a look at the future of Extension programs. They recognized and expressed concern for the problems of low income and disadvantaged families. They recognized the need for improving the nutritional level of these families.

The joint Land-Grant University-USDA study of the future of Extension report which was issued in 1968, A People and Spirit, gave heavy emphasis to expanding Extension programs to serve the needs of low income and disadvantaged families. It also strongly recommended a very substantial expansion of program aide staffs as an effective and efficient way of doing the job.

The funds provided for this program were to be used to employ aides, with the training and supervision of Extension home economists, to help low income families improve the nutritional quality and adequacy of their diet.

The funds used for this program are also used for direct costs associated with the employment of aides, such as educational materials, travel, and other costs directly associated with the program.

The funds provided are Section 32 funds. Section 32 funds are tariff on agricultural products imported into the United States. The Secretary of Agriculture has the discretion of using these funds for improving agriculture and related fields. The tentative plan is that, once this program has been established and has demonstrated its value, the funding will be transferred from Section 32 funds to regular Smith-Lever Appropriations.

Mr. Davis in his speech said,

> We recognize the necessity of working with people on their problems--the necessity of starting where they are. Indeed this may mean that we work with them at first on problems not directly associated with food and nutrition. We recognize that the nutritional and food problems and needs of a family are but one string in a big ball of wax, that these problems are a part of a bigger complex. It may be necessary to work with the family on a number of matters related to that family's many competing demands for their scarce resources in order to have some impact on their diets. Indeed the diets of families are dependent in part on their knowledge and skills but also upon their basic values, on what they think to be important. Indeed this may be particularly important among the children.
>
> We also want to recognize in this program the old principle on which 4-H was based, in part, initially--the principle that sometimes one of the most effective

ways of bringing new ideas to adults in the family is to have them introduced by the children. It is indeed important to remember that what these young people learn about diets now will affect the foods they provide for their children. So we believe that it's important to work with the whole family, with the adults and the youth, in this program.

Since the funds are provided with the objective of improved nutrition and diets, this must be the primary objective but we fully recognize that the program cannot be limited to this.

Also many of these families use or are eligible for donated foods or participate, or may participate, in the food stamp program. These can be useful programs for helping these families improve their nutritional and dietary levels. It is important that we help these people use the foods so obtained effectively and efficiently and encourage eligible people to participate where this will contribute to improving their situations.

I would say first that we have before us now, an opportunity that many of us have sought for a considerable period of time. We have a new recognition of the value of Extension programs. We have a new recognition of the significance of home economics Extension in today's world. We can build on this to develop greater opportunity to be of still greater service in the future.(3)

W. J. Whorton, editor of the Extension Service Review said:

In view of the fact that nutrition education is one of the oldest Extension home economics programs, what is special about the Expanded Foods and Nutrition Program?

The expansion is special for several reasons. First, emphasis of the expansion is being directed to the hard-to-reach, low income families. It is special because this is the first time Section 32 funds have been used to finance educational work in nutrition. It is special because the funds can only be used to hire, train, equip, and support nonprofessional aides--not to pay the costs of professional support and supervision for the effort. The aides are to work on a person-to-person basis with individuals who do the food shopping and prepare the meals in the target families.

> The goals of the expansion for the initial allocation called for employing more than 5,000 aides and reaching nearly 200,000 low income families by July 1, 1969. At the half-way point, the expansion seemed to be on or ahead of schedule.
>
> The expansion of the Foods and Nutrition Program presents the most challenging opportunity the Cooperative Extension Service has faced in recent years. It promises an impact that defies evaluation at this point. At the outset, however, as indicated by the reports of 39 states, we have reason to be more than optimistic about the overall results.(18)

As of June 30, 1969 there were 3,586 aides serving 125,860 families in the United States. A total of $29,800,000 was appropriated for the program for the fiscal year 1969 and 1970.

Mississippi

The Expanded Foods and Nutrition Program was begun in Mississippi in February, 1969.

Mr. W. M. Bost, Director of the Mississippi Cooperative Extension Service, said:

> This program offers to Extension home economics and our total program one of the greatest opportunities that has come our way in a long time. It is significant that an established, time-tested agency such as Cooperative Extension was given this major responsibility in the national way on poverty.(2)

Most states elected to concentrate the number of aides in a few areas. Mississippi was different--a decision was made to allow counties to participate on a volunteer basis employing a maximum of five aides per county. As of December, 1969, 81 of the 82 counties were participating in the program. There were 366 aides working with 14,060 families. Eighty-nine percent of these families had an annual income of less than $3,000.

The aides in each county were selected and hired by the county Extension staff. In most cases they were selected from the communities in which they would work. These communities had already been selected by the county staff based on the need and population of low income, hard-to-reach families. Each aide, in consultation with the Extension staff, selected the families with whom they would work. This selection was made on the basis of need and the desire of the families to receive help. Each aide works with approximately 40 families. In addition to this work they also have some opportunities to teach groups of homemakers not enrolled in the Expanded Foods and Nutrition Program.

The Extension home economist in each county has the responsibility of training and supervising the aides. The home economists received training on the program prior to its implementation in the various counties.

The aides received seven days training prior to their first visit with the families. This training was given by the home economists and other resource people in each county.

The aides are required to come to the county Extension office twice each month. One of these visits is for a conference with the home economist. The purpose of this conference is to review work being done and any problems that might exist. The other visit is for training. The aides meet as a group for this training. As has been stated before, this training is primarily in the area of nutrition.

After each training meeting the aides utilize what they have learned during their visits with the families for the following month. Each month new lessons are learned by the aides and they in turn teach them to the homemakers on an individual basis.

The aides write logs on each visit after they leave the home.

The families receive approximately two hours training from the aides each month on a regularly scheduled basis. The aides may work a maximum of 100 hours per month. They work on a two-week pay period.

Choctaw County

The Expanded Foods and Nutrition Program basically operates the same in Choctaw County as was explained for the State of Mississippi.

At the present there are three aides working with 120 families. All of these are low income families.

The program was begun in Choctaw County in February, 1969. At that time five aides were employed. Since then one aide moved out of the county and one other aide works in a local factory. The remaining three aides have been working in the program since its beginning.

A significant part of this program is the development of the aides themselves. There has been a definite improvement in each of these aides. The writer feels that, while this is not the primary purpose of the program, it is important. They receive valuable ... training and experience while working with the families.

The aides have received training on the same basis as explained in the State program.

As has already been mentioned, the aides write logs after leaving the homes after each visit. Samples of these logs are included in Appendix B.

The aides seem to enjoy their work and are, in fact, rather enthusiastic about it.

While the salaries received by the aides are small compared to professional workers it does give them an opportunity to improve their standard of living. They receive $1.60 per hour for 100 hours per month. They also receive $16 per month as a travel allowance. This gives them part-time employment with an income of $176 per month.

The major part of the educational work in the Foods and Nutrition Program is done through demonstration. The aides learn, during their training sessions, how to prepare meals and do other things which are directly connected with foods and nutrition. They present this information to the homemakers by actually cooking a meal and showing them step-by-step how it is done.

The foods and nutrition work is primarily based on the proper use of the "basic four food groups". The correct number of servings should be eaten from each of these four groups each day for a balanced diet.

Guidelines by which the aides should be selected were developed on the state level. A copy of these guidelines may be found in Appendix C. The guidelines were followed as nearly as possible in selecting the aides in Choctaw County.

The aides in Choctaw County range from 28 to 47 years of age.

The educational level is from that of an eighth grade education to a high school graduate.

The aides work with families of their own neighborhood. This is an advantage to the aides and the families in that they knew each other from the beginning. These aides often work more than the allotted 100 hours each month, even though they receive no pay for overtime.

The three aides working in Choctaw County are Negroes. All of the families on the program are Negro families.

The families who receive training seem to appreciate the program and, in most cases, are eager to learn.

CHAPTER III

REVIEW OF LITERATURE

The purpose of this chapter is to present literature and research findings relative to the Extension Aide Program and to this study. Published and unpublished literature was reviewed in order to become familiar with, and to acquire understanding of, information relating to this study.

The trend to use nonprofessionals has been evident in a variety of organizations. In fact, Mary Dublin Deyserling, Director of Women's Bureau, U. S. Department of Labor said:

> One of the important developments we can anticipate in the years ahead will be the more intensive analysis of how the nonprofessional aspects of many professional jobs can effectively be assumed by persons less highly trained, under adequate supervision. This will be especially true in the health fields, teaching and social work fields, and in the field of home economics.(8)

Various writers have written about the several aspects of poverty; what it is--where it is--and how to work with the people who are in it. Michael Harrington in his book "The Other American", noted characteristics associated with poverty--fatalism, pessimism, apathy, defeat, alienation--and termed them collectively the "culture of poverty."(5)

Another writer suggests that Harrington's concept presents a one-sided picture of the poor. He said he would "rather talk about different low income cultures that include many values and behavior patterns."(10)

The latter definition suggests that one might think of poverty in terms of a "social system or systems." Sorokin identified the significant element of social systems as "meaningful interaction of two or more human individuals by which one party tangibly influences the overt actions or the state of mind of the other."(15) Based on this, we might think of the entire arena of poverty as a "social system" but just as correctly we might identify certain sections or elements in the arena as social systems in their own right. Society is filled with a multitude of "social systems" in which individuals seek to find status, roles, rights, and objectives (purposes) in daily living and by means of which they fulfill the imperatives of being persons.(9)

The concept of social systems has important implications for Extension workers and other educators or change agents. Beavers said, "The educator must adjust educational programs to the way of life of the various sub-cultures he is trying to reach. To be an effective planner, he must have some knowledge of the home life and aspirations of families."(1) Stated another way the educator must understand the social system within which he is conducting educational programs.

The Cooperative Extension Service has a long history of developing programs with people "where they are." Nevertheless, there is some feeling that communication between professional trained Extension workers (college graduates) and the disadvantaged are not always as effective as possible. This alleged difficulty might be explained by the fact that communication between any two social

systems is more difficult than it is within the system. Smith, in his book, "Communication and Culture", states, "Communication across group boundaries runs the danger--aside from sheer language difficulties--of being blocked by differential rules for the ordering of speech and thought."(12)

Sollie and Linder in their paper "Creating and Using Systemic Links Among Low Income Families" said:

> Various systems in American society exist in a structural hierarchy, and communication between these systems represent an upward and/or downward flow of symbols such that sender and receiver do not always communicate effectively. Therefore, when members of one system, e.g., Cooperative Extension Service, attempt to communicate with members of another system, e.g., the poor, with the objective of bringing about behavioral changes there is a strong probability that the level of change desired by the system initiating communication will not be achieved.
>
> This failure cannot all be explained in terms of communication phenomena, perhaps, but it seems reasonable to assume that if communication between two dissimilar systems can be improved the probability that behavioral change will occur should be greater.(14)

Since the nonprofessionals or aides were selected from among the disadvantaged they are able to serve as systemic links or to bridge the gap between the two social systems (Extension home economists and disadvantaged families).

Saul A. Silverman in his article, "Subprofessionals in Extension?", states:

> We are beginning to see an enormous need for more personnel if we are to reverse the horrors of poverty and that the concept of the subprofessional is a brilliant prospect for providing many such needed personnel. There are two potential outcomes from employing subprofessionals: (1) the contribution

> he can make in helping clientele and (2) the enormous help that comes to the subprofessional in the process of his working in a particular program.(11)

The following by Mr. Silverman is another interesting and important point in utilizing subprofessionals:

> The great problem in the utilization of the subprofessional is just as much in the professional as it is in the subprofessional. It doesn't make any difference if we're talking about the professional county agent or home economist, professional social worker, a professional teacher of English, a nurse, or a director of mental health. There are certain problems that all professionals are facing: a certain level of threat-ability (i.e., that the professional will be out-competed and replaced; that many of the skills he possesses and identifies with professional pride are not that difficult to learn). We are in such a drastic social change that professionals in all helping services have to change--the professional has to learn to move over, to redefine his role. And he must give up his need for role identity in the part of the role that can be transmitted to the subprofessional.(11)

In the Foreward of the 1969 Yearbook of Agriculture, Secretary of Agriculture Clifford M. Hardin wrote:

> When inadequate buying power is combined over a long period of time with inadequate knowledge of how to select and prepare food for good nutrition, poor nutrition becomes almost inevitable.
>
> And from poor nutrition, in turn, there often stems debility and listlessness, with inability to get and keep a responsible job, or to profit sufficiently by education and training, or to strive in a meaningful way for self-improvement.
>
> This is a vicious circle. It is vital that this circle be decisively broken.(4)

An evaluation of the Expanded Foods and Nutrition Program was made in Louisiana in 1969.(6) This evaluation was done after the program had been in process for eight weeks. The study included

over 500 families from 31 parishes who were participating in the program. The families were selected by a random sample.

The objective of the evaluation was to determine the change in nutritional habits of the families. This information was obtained by determining the number of servings of the basic four food groups each family was receiving at the beginning of the program and at the end of the eight-week period.

Thirty-three percent of the families had the correct number of servings of milk at the beginning of the program. Eight weeks later 53 percent reported having the correct number of servings.

Eighty percent of the families were receiving two or more servings of meat at the beginning of the program. Eighty-nine percent were receiving two or more servings at the end of the eight-week period.

Only 8 percent were receiving the correct number of servings of the vegetable and fruit group in the beginning. Twenty-three percent were receiving the correct amount at the end of the eight weeks.

There was an increase in consumption of the bread and cereal group from 38 percent to 47 percent.

In this study the greatest percent change as a result of the program was in the increased use of milk and milk products.

The next largest change was in the use of the vegetable and fruit group. The increase here was 15 percent.

There was a 9 percent increase in both the meat and bread and cereal groups.

A further study was made with these same families to determine changes made in the use of the basic four food groups according to income, education and residence.

A brief summary of this study is as follows:

Income: The incomes were broken into increments of $1,000. This ranged from less than $1,000 to $5,000.

In general, the families with the higher incomes had more adequate diets before and after the eight-week program. The group with incomes from $3,000 to $3,999 made the greatest percentage change in their use of the basic four food groups. However, all income groups made some progress regardless of income.

It should be noted that 36 percent of the families in the Louisiana study had annual incomes of above $3,000 which is above the poverty level or low income group. It should be noted further that the Expanded Foods and Nutrition Program was designed primarily for low income families.

If only the low income families had been studied, in measuring the effect of income on percentage change in the use of the basic four food groups, the results would have been different. Of this group, the greatest percentage change was made by the $1,000 to $1,999 income group in the use of milk, vegetable/fruit and bread/cereal food groups. In the use of meat the greatest percentage change was made by the $2,000 to $2,999 income group.

Education: The educational level of the homemakers in the study was measured from no education to those who had finished high school. The group with no education made a greater percentage change in the

use of the milk and bread/cereal group. The next greatest percentage change occurred with those who had finished high school. It appeared that those with less education were about as likely to have an adequate amount of meat as those with a higher educational level.

When the homemakers were divided according to their educational attainment, it was found that those with no education were less likely to have made changes in the use of the vegetable and fruit group.

Overall, the group with no education or little education made the greatest percentage change in their use of the basic four food groups.

Residence: Rural farm homemakers made the most progress in the proportion having an adequate diet, as a result of the eight-weeks program, than either the rural nonfarm or urban homemakers.

CHAPTER IV

RESEARCH PROCEDURE

The data used in this study were collected through the use of an instrument designed by the Economic Research Service, United States Department of Agriculture. The instrument is composed of three pages of data. See Appendix D for sample copies. The face data obtained through the use of this instrument are used throughout this study to show the general situation of the families being studied. Other data obtained were used to determine change and progress made in the eating habits or dietary levels of the families being studied.

The population for this study is composed of 100 low income families. These are all the families who have participated in the Expanded Foods and Nutrition Program in Choctaw County for one year. The period of study is from March, 1969 to March, 1970. As has been stated before, the program was started in February, 1969.

The aides, through personal interviews, collected the data for this study. They were given instructions before they began collecting the data. They also participated in a practice session by collecting the data from each other.

The data presented in this study, with the exception of income and some of the face data, were collected for three different periods. The three periods were March, 1969 (at the beginning of the program), September, 1969 and March, 1970. The average monthly income was obtained for two periods, March, 1969 and March, 1970.

Each item on the forms used in this study was coded for IBM tabulation. The tabulations and machine operations were performed on the IBM equipment in the Data Processing Center at Mississippi State University.

Chi Square was used to determine the significance of the changes in the dietary levels of the families in the study.

CHAPTER V

PRESENTATION OF ANALYSIS OF DATA

The educational level of the homemakers ranged from less than seven years of formal schooling to 12 years. Thirty-four had finished the sixth grade or less, 30 had finished the seventh or eighth grade, 20 had finished either the ninth or tenth grade, and 15 had finished the eleventh or twelfth grade.

The average size of the families at the beginning of the program was 4.6 members.

Ninety of the 100 families were receiving donated foods. Ninety-six of them reported having home gardens.

Six of the families lived less than one mile from a store where they could purchase groceries and supplies. Sixty-nine lived more than one mile and less than five miles from a store. Twenty-five lived more than five miles from a store. Only 17 said they shopped regularly at a supermarket.

Forty-one of the 100 families did not have their own transportation.

Ninety-three families own their own home. Most of these homes are in very poor condition.

Thirty-five of the families are rural nonfarm and 65 are farmers.

The average monthly income of the families in March, 1970 was $98.94.

The educational level of the homemakers being studied is shown to be quite low. Thirty-four percent had a sixth grade education or less and 64 percent had an eighth grade education or less. Only 15 percent finished the eleventh or twelfth grade. None of the homemakers had any college work. Employment opportunities, particularly for women with low educational levels, are very limited in rural areas.

Table 1. Average monthly income in 1969 and 1970 for Expanded Foods and Nutrition Program families by educational level of homemakers, Choctaw County, Mississippi.

Year	Years of School Completed					
	4 or less	5 - 6	7 - 8	9 - 10	11 - 12	Average
	Dollars					
1969	83.30	76.10	78.20	92.60	106.00	85.27
1970	87.30	90.10	85.00	98.80	147.30	98.94
	Number					
Families	8	26	30	21	15	

In discussing average monthly income, it is well to remember that the data are related to the homemakers and in most cases they are not the primary wage earners. In many cases, there may be two or more wage earners in the family. The monthly family income for 1969 ranged from $78.20 for families where the homemaker had finished either the seventh or eighth grade to $106 for those who had finished three or four years of school.

From the eighth through the twelfth grades the family incomes increased consistently with the increase in number of school years

completed. For those homemakers who had completed the eighth grade or less, the incomes were in reverse. However, the difference was very small. This difference can possibly be explained as a mere chance distribution.

Average monthly incomes for 1970 follow much the same pattern as for 1969. There was an overall increase of $13.67 in family income from March, 1969 to March, 1970.

Monthly food expenditures as a percentage of average monthly income ranged from 35.4 percent in September, 1969 to 38.6 percent in March, 1969. The highest percentage in March, 1969 and 1970 is for the group having the lowest average income. This is perhaps as would be expected. The reversal for September, 1969 may be due to percent consumption in both March and September of 1969 being figured against 1969 average income and this income or number of family members may not have been the same in both months, Table 2.

Table 2. Monthly food expenditures as a percentage of average monthly income for Expanded Foods and Nutrition Program families by educational level of homemaker, Choctaw County, Mississippi, March, 1969, September, 1969 and March, 1970.

Period	Years of School Completed					
	4 or less	5 - 6	7 - 8	9 - 10	11 - 12	Average
	Percent					
March, 1969[1/]	45.5	43.0	34.8	42.4	36.8	38.6
September, 1969[1/]	40.6	35.3	34.1	35.9	49.1	35.4
March, 1970[2/]	45.6	40.3	34.9	40.5	25.4	36.1

1/ Based on 1969 monthly income.

2/ Based on 1970 monthly income.

The average of about 35 percent of monthly income spent for food is much higher than the 16.5 percent national average reported for the first quarter of 1970, National Food Situation, Economic Research Service, USDA, May, 1970. One would think that percentage of income spent for food would be logically a function of income level as a certain food intake is essential for survival.

Disregarding income levels above $3,000 (there are only three families in this class) the higher the income level, the smaller the proportion of the income was used for food. In regard to this classification, families were grouped or assigned to income level classes by 1969 income. This means that the same family may or may not have belonged in the same income level class in 1970 if income had changed greatly. Also, percentage of income spent for food in March and September, 1969 is based on average annual monthly income for 1969. This income may have varied between the two months considered but both are percentages of the same figure, Table 3.

Data in Tables 4 through 6 are in terms of percent receiving the recommended number of servings and not average number of servings. As the recommended number of servings of milk and meat is two per day, excess servings can have a greater range and a few well in excess of the recommended could weigh on average greatly where the number of observations is small.

Early in the program, March, 1969, Table 4 shows that only 23 percent of the families had a recommended diet so far as vegetables and fruit are concerned to a high of 76 percent receiving the meat recommended. The adequacy of the diet increased steadily for the

Table 3. Monthly food expenditures as a percentage of average monthly income for Expanded Foods and Nutrition Program families by income level, Choctaw County, Mississippi, March, 1969, September, 1969 and March, 1970.

Survey Month	Income Level: Under $1,000	$1,000-1,999	$2,000-2,999	$3,000-3,999	$4,000-4,999	Average or total
	Number					
Families	58	32	7	2	1	100
	Percent					
March, 1969[1/]	37.5	44.4	20.9	47.2	66.7	38.6
September, 1969[1/]	42.1	36.9	26.7	21.0	20.0	35.4
March, 1970[2/]	35.2	40.8	23.5	65.4	21.4	36.1

1/ Based on 1969 monthly income.

2/ Based on 1970 monthly income.

periods. In March, 1970, 55 percent were receiving the recommended amounts of vegetables and fruit. Over 73 percent were receiving the recommended amounts of milk and bread and cereals. Eighty-seven percent were getting the proper amounts of meat.

Table 4. Percentage of Expanded Foods and Nutrition Program families receiving recommended number of servings of four basic food groups by month of survey, Choctaw County, Mississippi, March, 1969, September, 1969 and March, 1970.

Food Group	Month of Survey: March 1969	September 1969	March 1970
	Percent		
Milk	41.0	59.0	73.0
Meat	76.0	74.0	87.0
Bread and cereal	52.0	74.0	79.0
Vegetables and fruit	23.0	42.0	55.0

There is no trend in this study to indicate that educational level of the homemakers influenced adequacy of diets or that those with higher educational levels profited more by the training received. In March, 1969 none of the homemakers with the highest levels of education received the most adequate number of servings or the most adequate diet. In only one case was the family of the homemaker with the lowest educational level poorest fed. In March, 1970 a smaller percentage of the low educational level homemaker's families received proper servings of the milk, bread and cereal and vegetable and fruit groups. The families of the best educated homemakers were not those with the highest dietary level, Table 5.

Table 5. Percentage of Expanded Foods and Nutrition Program families receiving recommended number of servings of the four basic food groups by educational level of homemakers, Choctaw County, Mississippi, for the periods of March, 1969, September, 1969 and March, 1970.

Period	Food Group	Educational Level				
		4 or less	5-6	7-8	9-10	11-12
		Percent				
March 1969	Milk	37.5	53.8	40.0	33.4	33.3
	Meat	62.5	80.8	76.7	71.4	80.0
	Bread & Cereals	87.5	50.0	56.7	42.8	40.0
	Vegetables & Fruit	37.5	26.9	16.7	19.0	26.7
September 1969	Milk	12.5	61.5	73.3	57.1	53.3
	Meat	75.0	65.4	73.3	86.7	73.3
	Bread & Cereals	70.0	73.1	86.7	66.7	60.0
	Vegetables & Fruit	12.5	46.2	66.7	28.6	20.0
March 1970	Milk	50.0	76.9	80.0	76.2	60.0
	Meat	87.5	88.5	93.3	85.7	70.0
	Bread & Cereals	50.0	84.6	90.0	76.1	66.7
	Vegetables & Fruit	12.5	61.5	60.0	61.9	46.7

Based on change in percentage receiving recommended servings of the four food groups from March, 1969 to March, 1970, in no case did a single educational level group make the highest increase for more than one food group. In no case did the group where the homemaker had the highest educational level lead in percentage change.

These findings indicate that the training is conducted at a level that can be readily understood by each educational level of the group being studied. For information on number of families in each catagory see Appendix D, Table 4.

Disregarding those with incomes of $3,000 or more (only three in this group) families with incomes of under $1,000 received more adequate diets than those with higher incomes. A higher percentage of these same families received the recommended number of servings of each of the food groups in March, 1970. They also led in number of servings in both March and September of 1969 with the exception of the meat group, Table 6.

Table 6. Percentage of Expanded Foods and Nutrition Program families receiving recommended number of servings of four basic food groups by family income level, Choctaw County, Mississippi, for the periods of March, 1969, September, 1969 and March, 1970.

Period	Food Group	Income Level				
		Under $1000	$1000-1999	$2000-2999	$3000-3999	$4000-4999
		Percent				
March 1969	Milk	43.1	40.6	28.6	50.0	0
	Meat	79.3	68.8	85.6	100.0	0
	Bread & Cereal	51.7	53.1	28.6	100.0	100.0
	Vegetables & Fruit	27.6	21.9	0	0	0
September 1969	Milk	70.7	46.9	14.3	100.0	0
	Meat	69.0	81.2	71.4	100.0	100.0
	Bread & Cereal	75.9	75.0	57.1	100.0	0
	Vegetables & Fruit	43.1	40.6	28.6	100.0	0
March 1970	Milk	84.5	65.6	28.6	100.0	0
	Meat	93.1	81.2	57.1	100.0	100.0
	Bread & Cereal	91.4	68.8	42.9	100.0	0
	Vegetables & Fruit	62.1	53.1	14.3	100.0	0

CHAPTER VI

SUMMARY AND CONCLUSIONS

Summary

This study was designed to determine changes in the dietary levels of families participating in the Expanded Foods and Nutrition Program in Choctaw County, Mississippi. This program is being used by the Cooperative Extension Service as a new approach in providing education among the hard-to-reach, low income families.

The primary objective of the program is to raise the dietary levels of the families participating in it. Major emphasis has been placed on more and better use of donated foods and wise use of a limited income for food purchases. One hundred families in Choctaw County, Mississippi were included in this study. This includes all of the families who had participated in the Foods and Nutrition Program for one year (March, 1969 to March, 1970). Ninety percent of these families receive donated foods. The average family income was $98.94 per month in March, 1970. The average size of the families in March, 1969 was 4.6.

The educational work was done through the use of nonprofessional people. These nonprofessionals were known as "aides" in the Expanded Foods and Nutrition Program. A great deal has been said about the use of nonprofessionals in various fields during the past few years. It seems that the use of aides, according to studies that have been made, has been successful in expanding and strengthening program

efforts for the disadvantaged. All indications are that there is a trend toward the use of nonprofessional people, not only by the Cooperative Extension Service, but by other agencies as well.

The specific objectives of this study were: (1) to determine changes in dietary levels of families on the Expanded Foods and Nutrition Program after one year of participation in the program, (2) to determine the influence of education on changes made in dietary levels, and (3) to determine the influence of income on changes made in dietary levels.

At the beginning of the program, each family was checked to determine their use of the basic four food groups. Two more checks were made during the year, one at the first six month period and another at the end of the first year. This was to determine changes made. The adequacy of the diets increased steadily for the periods. In March, 1969, 41 percent of the families were receiving an adequate amount of milk compared to 59 percent in September, 1969. At the end of the first year, 73 percent of the families were receiving the proper amount of milk. Seventy-six percent of the families were receiving the proper amount of meat at the beginning of the program compared to 87 percent one year later. Of the bread and cereal food group, 52 percent of the families were receiving the correct amount at the beginning of the program. Seventy-nine percent were receiving the proper amount after one year. Only 23 percent of the families were eating the right amount of vegetables and fruit at the beginning of the program. This had increased to 55 percent at the end of one year. The change observed is highly significant.

Of the 100 families, 34 percent had a sixth grade education or less and 64 percent had completed the eighth grade or less. Only 15 percent had finished either the eleventh or twelfth grades. None of the homemakers had finished more than the twelfth grade.

There was no indication in this study that educational level of homemakers influenced the change in the adequacy of the family diets. The families of the best educated homemakers did not make the greatest change in dietary levels. In no case did a single educational level group make the highest increase for more than one food group.

It should be noted that this program was designed for homemakers with low educational levels. This probably accounts for the insignificance of the educational levels on changes made in the dietary levels of the families.

Approximately 35 percent of the income of the families in this study was spent for food. This is double the national average for family food expenditure. However, the low monthly income of these families accounts for this difference. One would think that percentage of income spent for food would logically be a function of income level as a certain food intake is essential for survival.

Of the 100 families being studied 97 percent had annual incomes of less than $3,000. A greater percentage change in dietary levels was made with the families having an annual income of $1,000 or less. The next greatest change was with those families having an annual income of from $1,000 to $2,000.

These results are probably due to the large number of these families who received donated foods and made more adequate use of them by having participated in this educational program.

The results of this study correspond very closely with a similar study made in Louisiana. In the Louisiana study there was a significant change in the dietary levels of the families. The educational level had little effect on the changes. The greatest percentage change was not made with the families having the higher income levels.

Conclusions

The following conclusions are based on the analysis and interpretation of the data obtained in this study of the Expanded Foods and Nutrition Program in Choctaw County, Mississippi.

1. The Foods and Nutrition Program in Choctaw County has been successful in raising the dietary levels of the families participating in the program.
2. Nonprofessionals can be used successfully in expanding and strengthening programs for the disadvantaged and the hard-to-reach population.
3. Low income, hard-to-reach families are eager to learn and to receive help through educational programs when presented on a level which they can comprehend.
4. Homemakers of low educational levels can learn the importance of proper nutrition for their families and how to improve their dietary levels when taught on a level which they can comprehend.

5. Families with low incomes who receive donated foods can improve their dietary levels.

ABSTRACT

Billy D. Walton, Master of Science, 1971

Major: Agricultural Extension, Department of Agricultural Extension

Title of Thesis: A Determination of the Change in Dietary Levels of Families Participating in the Expanded Foods and Nutrition Program in Choctaw County, Mississippi

Directed by: Dr. Charles Aiken

Pages in Thesis: 66 Words in Abstract: 388

ABSTRACT

The purpose of this study was to determine changes made in the dietary levels of families participating in the Expanded Foods and Nutrition Program in Choctaw County, Mississippi.

This new program was initiated in February, 1969. It is being carried out by the Cooperative Extension Service. The program is designed to bring about improvements mainly in the area of foods and nutrition for low income, hard-to-reach families.

The educational work is being done through the use of non-professionals. These nonprofessionals are known as "aides". These aides are trained in each county by the home economist. The aides, in turn, teach the homemakers on an individual basis through home visits.

Information for this study was gathered from 100 families. These were all the families who had participated in the Foods and Nutrition Program in Choctaw County for one year. The first data were collected in March, 1969. The same instrument was used to collect the data in September, 1969 and in March, 1970. The aides collected the data from each homemaker through personal interviews.

The families' consumption of the basic four food groups was used to determine the dietary levels for each of the three periods.

This study indicates that definite progress was made during the year. There was a significant increase in the use of the basic four food groups by the families.

There was no indication in this study that educational level of the homemakers influenced the change in the adequancy of the family diets. The families of the best educated homemakers did not make the greatest change in dietary levels. In no case did a single educational level group make the highest increase for more than one food group. None of the homemakers had an educational level of above the twelfth grade.

The program was designed for homemakers with low educational levels. This probably accounts for the insignificance of the educational levels on changes made in the dietary levels of the families.

The greatest increase in the use of the basic four groups, was made among the families having the lowest incomes. Ninety percent of the study families received donated foods. This means that these families had a certain amount of food on hand regardless of

their food purchasing power. These donated foods included some of each of the basic four food groups.

APPENDIX A

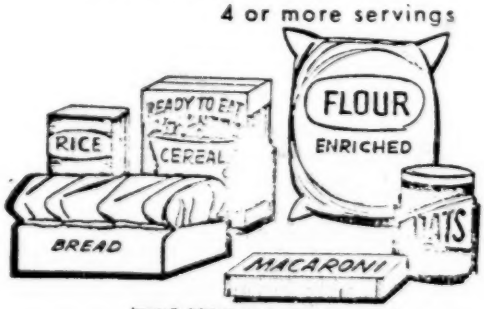
DAILY FOOD GUIDE

MILK GROUP
some for everyone

MEAT GROUP
2 or more servings

VEGETABLE - FRUIT GROUP
4 or more servings

BREAD - CEREAL GROUP
4 or more servings



everyday eat foods from each group

EAT OTHER FOODS AS NEEDED TO ROUND OUT MEALS

U.S. DEPARTMENT OF AGRICULTURE • Consumer and Marketing Service • Agricultural Research Service • July 1966

For sale by the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402 - Price 10 for 35 cents, 100 for $3.25 C&MS 23

Follow the Food Guide Every Day

SOME for **EVERYONE**

MILK GROUP

COUNT AS A SERVING 1 CUP OF MILK

Children under 9 — 2 to 3 Adults — 2 or more

Children 9-12 — 3 or more Pregnant Women — 3 or more

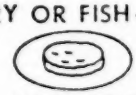
Teenagers — 4 or more Nursing Mothers — 4 or more

Cheese can be used for part of the MILK

2 or more **SERVINGS**

MEAT GROUP

COUNT AS A SERVING 2 OR 3 OUNCES OF COOKED LEAN MEAT, POULTRY OR FISH — — SUCH AS


A HAMBURGER

OR A CHICKEN LEG

OR A FISH

ALSO-2 EGGS

OR 1 CUP COOKED DRY BEANS OR PEAS

OR 4 TABLESPOONS PEANUT BUTTER

4 or more **SERVINGS**

VEGETABLE-FRUIT GROUP

COUNT AS A SERVING ½ CUP (RAW OR COOKED)

OR 1 PORTION SUCH AS

OR

OR

4 or more **SERVINGS**

BREAD-CEREAL GROUP (WHOLE GRAIN OR ENRICHED)

COUNT AS A SERVING

1 SLICE OF BREAD OR 1 BISCUIT

OR 1 OUNCE READY-TO-EAT CEREAL

OR ½ CUP TO ¾ CUP COOKED CEREAL, CORNMEAL, GRITS, MACARONI, RICE, OR SPAGHETTI

EAT OTHER FOODS AS NEEDED TO ROUND OUT THE MEALS

U.S. DEPARTMENT OF AGRICULTURE • Consumer and Marketing Service • Agricultural Research Service • July 1966

APPENDIX B

Appendix B contains sample copies of logs written by each aide who works in the Expanded Foods and Nutrition Program in Choctaw County.

These samples were copied verbatim as written by the aides.

June 10, 1970, 1 hr., Rt. 1, Box , French Camp

She was washing dishes when I arrived. I noticed on my way in she had cleaned some on the yards. She mentioned about the work she had to do to get every thing straighten out. They have moved in a new house that they build about a month ago.

I gave her a recipe for instant potato cheese salad and a packet of kool-aid. She asked me to read it for her. She did all of the measuring for both recipes. She thought this was a very good recipe for the potatoes and apple punch for her family didn't like the apple juice to much in this way they will drink it because they like kool-aid. I stressed the Vitamin (A) and (C) they will get. Will give the bodies more energy.

We did a breakfast menu. Oat meal with milk and sugar. Cheese toast, scramble eggs, milk and orange juice. They are getting commodities. She said she did the recipe on the peanut butter pie it was very good. I told her to try as many as she possible could because this would be a help to her preparing and planning meals for her family.

June 4, 1970, 2 1/2 hrs., Rt. 2, Ackerman

I again worked in the home of Miss McMullen. She was cooking dinner when I arrived, I told her the purpose of my visit and what we were suppose to be doing she seemed surprised when I told her about the delicious potato salad that has been made using the instant potatoes. She did not believe that a good salad could be made from the instant potatoes. After we had finished and Miss McMullen and her sister sampled the salad they both agreed that this salad was just as good as any other salad. They both was very glad to learn how this was done.

We set the next visit, the house was clean. They have also bought a gas stove and rid of the wood stove.

June 17, 1970, 2 1/2 hrs., Rt. 2, McCool

I visit Ernesteen this morning. She had just finish her morning house work and she wanted to get right to work. We made the apple punch also the bean salad. She was very please as well as surprise at them both. She told me about how she have been using these foods since this program. She said she even uses the flour to bake her cakes and pies. We planned this menu, bean salad, apple punch, corn bread, meat loaf, prune pies. She have did quite a bit of improvement in her cooking. She have learn how to use the foods in many ways. Her family like the chicken salad, the children was gone away from home to play.

APPENDIX C

Suggested Criteria for Use in Selection of Extension Aides

Check Sheet Following Interview

___ 1. Be within a preferred age range, 30-60 years.

___ 2. Have a health certificate on file with application.

___ 3. Have transporation or access to it.

___ 4. Have telephone or access to it.

___ 5. Be able to arrange home and/or work schedule in order to devote time to the job.

___ 6. Be a resident of the neighborhood in which she will work.

___ 7. Have a favorable attitude toward keeping records and reports.

___ 8. Be a neat and clean homemaker.

___ 9. Have emotional maturity.

___ 10. Shows interest in helping others.

___ 11. Shows a willingness to learn.

___ 12. Appears to believe that others can learn.

___ 13. Appears to have confidence in oneself.

___ 14. Appears willing to accept supervision and training.

___ 15. Has a cheerful disposition.

___ 16. Will be dependable.

___ 17. Have the ability to talk easily with others.

___ 18. Have the ability to talk with different age groups in the family.

___ 19. Be respected in the community.

___ 20. Seems able to help families identify and express their needs.

___ 21. Be able to adapt materials to meet the needs of the family.

____ 22. Accepts the fact the information concerning the family is confidential.

APPENDIX D

EXPANDED FOODS AND NUTRITION EDUCATION PROGRAM CHECK LIST

FOR HOMEMAKER

Situation

1. Average monthly family income 1969_____ 1970_____.
2. Average monthly family expenditures for food March 1969_____, September 1969_____, March 1970_____.
3. Percent of monthly family income spent for food March 1969_____, September 1969_____, March 1970_____.
4. Home Garden (Yes)_____ (No)_____.
5. Receives food stamps_____. Eligible but not receiving food stamps_____.
6. Receives donated foods_____. Eligible but not receiving donated foods_____.
7. Buys most of food at supermarket_____. Buys most of food at small local store_____.
8. Number of family members at home_____.
9. Homemaker ate correct number of servings from food group:

	March	September
Milk.....	_____	_____
Meat.....	_____	_____
Bread-cereals.....	_____	_____
Vegetables-fruit.....	_____	_____

Food and Nutrition Education Program
FAMILY RECORD -- PART 1
DESCRIPTION

(1) Family ID No. _____

(a) Name _____

(b) Street _____

(c) City _____ (d) State _____

(e) ☐ Urban ☐ Rural nonfarm ☐ Farm

(2) (a) Date of first visit: _____

(b) Date record completed: _____

(3) Family on welfare (other than donated foods and food stamps): ☐ Yes ☐ No

(4) Family receiving food assistance on regular basis (other than donated foods and food stamps)
☐ Yes ☐ No

(5) Family gets some food from home garden
☐ Yes ☐ No

FAMILY MEMBERS (FIRST NAME) (6)	AGE YRS. (7)	SEX		CHECK IF "YES"	
		MALE (8)	FEMALE (9)	NOW IN SCHOOL (10)	HAD SCHOOL LUNCH LAST WEEK (11)
(NO. OF MEMBERS _____) TOTALS					

(12) HIGHEST GRADE IN SCHOOL COMPLETED BY HOMEMAKER _____

(13) HOME:
(a) ☐ OWNER
(b) ☐ RENTER OR TENANT
(c) MONTHLY PAYMENT
$ _____

(14) INSIDE HOUSE THERE IS
(a) ☐ ELECTRICITY
(b) ☐ RUNNING WATER
(c) ☐ ICE BOX
(d) ☐ REFRIGERATOR
(e) ☐ FREEZER
(f) ☐ COOK STOVE
(g) ☐ OVEN
(h) ☐ HOT PLATE

(15) BUY MOST OF FOOD AT
(a) ☐ SUPERMARKET
(b) ☐ SMALL LOCAL STORE

(16) USDA PROGRAM IN AREA:
(a) ☐ DONATED FOOD
(b) ☐ FOOD STAMP

FOOD SOURCES	HOW FAR FROM HOME			HOW USUALLY GET THERE			
	LESS THAN 1 MILE (a)	1-5 MILES (b)	MORE THAN 5 MILES (c)	WALK (d)	OWN CAR (e)	BUS OR TAXI (f)	OTHER (g)
(17) STORE (IN 15)							
(18) DONATED FOOD CENTER							
(19) FOOD STAMP ISSUANCE OFFICE							

(20) Check for home maker

(a) ☐ White *(other than Spanish-American)*

(b) ☐ Negro

(c) ☐ Spanish-American

(d) ☐ Oriental

(e) ☐ Indian

(f) ☐ Other

(21) Income last year for all family members. Include income from all sources, such as:

Wages and salaries	Pensions
Social Security	Support from others
Welfare payments	Income after expenses from business and farming
Insurance payments	
Veterans benefits	

CHECK ONE:

(a) ☐ Less than $1,000	(d) ☐ $3,000 - 3,999
(b) ☐ $1,000 - 1,999	(e) ☐ $4,000 - 4,999
(c) ☐ $2,000 - 2,999	(f) ☐ $5,000 and over

(22) Aide _____ (23) State No. _____ (24) Unit No. _____
(Name)

(25) Family Record No. _____

(Fill out for each family in unit as soon as possible and yearly thereafter. Keep in family file after review by Trainer-Agent)

APPENDIX TABLE 1. General data on Foods and Nutrition Program families by years of schooling completed by the homemaker, Choctaw County, Mississippi, March, 1969.

Item	Years of Schooling Completed					
	4 or less	5-6	7-8	9-10	11-12	Total
Number	8	26	30	21	15	100
Receive donated foods	8	25	28	17	12	90
Have home garden	7	25	29	21	14	96
Own home	5	22	29	19	14	89
Rural nonfarm	6	9	6	10	4	35
Farm	2	17	24	11	11	65
Own auto	4	16	15	13	11	59
Average family size	4.1	4.5	4.3	5.0	5.0	4.6

APPENDIX TABLE 2. Average monthly food expenditure of Foods and Nutrition Program families by educational level of homemaker, Choctaw County, Mississippi, March, 1969, September, 1969, and March, 1970.

Month	Years of Schooling Completed					
	4 or less	5 - 6	7 - 8	9 - 10	11 - 12	Total
	Dollars					
March, 1969	37.90	32.70	27.20	40.00	32.20	32.93
September, 1969	33.80	26.90	26.70	32.30	38.00	30.20
March, 1970	39.80	36.30	29.70	40.30	37.90	35.69

APPENDIX TABLE 3. Average monthly food expenditures of Foods and Nutrition Program families by income level, Choctaw County, Mississippi, March, 1969, September, 1969 and March, 1970.

Month	Income Level					
	Under 1,000	$1,000 -1,999	$2,000 -2,999	$3,000 -3,999	$4,000 -4,999	Total
March, 1969	20.90	40.60	44.90	135.00	200.00	32.93
September, 1969	23.40	33.80	57.50	60.00	60.00	30.20
March, 1970	28.40	42.40	52.30	85.00	30.00	35.69

APPENDIX TABLE 4. Number of Foods and Nutrition Program families receiving recommended number of servings of the basic four food groups by educational level of the homemaker, Choctaw County, Mississippi, for periods of March, 1969, September, 1969, and March, 1970.

Period	Food Group	Educational Level					
		4 or less	5-6	7-8	9-10	11-12	Total
March 1969	Milk	3	14	12	7	5	41
	Meat	5	21	23	15	12	76
	Bread & Cereal	7	13	17	9	6	52
	Vegetable & Fruit	3	7	5	4	4	23
September 1969	Milk	1	16	22	12	8	59
	Meat	6	17	22	18	11	74
	Bread & Cereal	6	19	26	14	9	74
	Vegetable & Fruit	1	12	20	6	3	42
March 1970	Milk	4	20	24	16	9	73
	Meat	7	22	28	18	12	87
	Bread & Cereal	4	22	27	16	10	79
	Vegetable & Fruit	1	16	18	13	7	55

APPENDIX TABLE 5. Number of Foods and Nutrition Program families receiving recommended number of servings of the basic four food groups by family annual income level, Choctaw County, Mississippi, for the periods of March, 1969, September, 1969 and March, 1970.

Period	Food Group	Income Level					
		Under $1000	$1000-1999	$2000-2999	$3000-3999	$4000-4999	Total
March 1969	Milk	25	13	2	1	0	41
	Meat	46	22	6	2	0	76
	Bread & Cereal	30	17	2	2	1	52
	Vegetable & Fruit	16	7	0	0	0	23
September 1969	Milk	41	15	1	2	0	59
	Meat	40	26	5	2	1	74
	Bread & Cereal	44	24	4	2	0	74
	Vegetable & Fruit	25	13	2	2	0	42
March 1970	Milk	49	21	2	1	0	73
	Meat	54	26	4	2	1	87
	Bread & Cereal	53	22	3	1	0	79
	Vegetable & Fruit	36	17	1	1	0	55

APPENDIX TABLE 6. Average monthly income of Foods and Nutrition program families by income level, Choctaw County, Mississippi, 1969 and 1970.

Year	Under $1,000	$1,000 -1,999	$2,000 -2,999	$3,000 -3,999	$4,000 -4,999	Average
1969	55.60	91.50	215.00	286.00	300.00	85.27
1970	79.50	103.90	222.30	130.00	140.00	98.94

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